

Moab Wash would be reconstructed in its general present alignment. After removal of the tailings impoundment and contaminated soils, site topography and future land use are uncertain. Thus, to minimize costs and achieve fluvial stability, the channel would be reestablished in its current location. Additional meanders may be added to increase travel distance of the water and reduce slope to mitigate future erosion caused by higher water flow velocity. The channel would be lined with riprap and designed to carry the estimated runoff volume for a 200-year flood. Larger flows would be allowed to flood into channel overbank areas.

2.2.2 Characterization and Remediation of Vicinity Properties

Characterization and remediation of vicinity properties would be completed as described in Section 2.1.2. The primary difference between the on-site and off-site disposal alternatives with regard to vicinity properties would be the requirement to transport the stockpiled material to an off-site disposal location.

2.2.3 Construction and Operations at Borrow Areas

Descriptions of borrow material site locations, standards, and excavation procedures are the same as those described in Section 2.1.3. However, borrow material traffic density and routing would differ from those described in Section 2.1.3.2 because, with the exception of the Moab site reclamation soil, the borrow materials would be delivered to, or be available at, the selected off-site disposal location.

Transport Truck Traffic Density

As shown in [Table 2–7](#), assuming implementation of a double work shift (for truck or rail haul) DOE estimates that the transport of borrow materials would require a total of 67 daily round-trips for the Klondike Flats off-site disposal alternative and 24 for the Crescent Junction or the White Mesa Mill alternative. (For the slurry pipeline mode, average daily round-trips would be about 30 percent less than those shown in Table 2–7 because of the longer overall schedule for borrow material activities.) Under a double work shift schedule, borrow material transportation would be ongoing for approximately 2.75 years (875 days) for the truck or rail transportation mode (see Figure 2–10 and Figure 2–11). For the slurry pipeline mode, borrow material activities would be ongoing for about 4 years (Figure 2–12). Table 2–7 also shows the total volume and total shipments for each of the five types of borrow materials.

If a single daily work shift schedule were implemented for the truck or rail transportation modes, borrow material transportation would be ongoing for approximately 3.75 years, and the estimated daily round-trips would decrease to approximately two-thirds of the numbers shown in Table 2–7. As shown in Table 2–1, there are several optional borrow areas for obtaining cover soil. Table 2–7 assumes that all cover soil would come from the Floy Wash borrow area (as would all Moab site reclamation soil). This option would generate the most traffic on public highways.

Table 2–7. Summary Logistics for Borrow Material Transport
(Truck or Rail Haul Double Work Shift)

Borrow Material	Klondike Flats Alternative			Crescent Junction Alternative			White Mesa Mill Alternative		
	Daily Round-Trips	Total Volume (yd³)	Total Ship.	Daily Round-Trips	Total Volume (yd³)	Total Ship.	Daily Round-Trips	Total Volume (yd³)	Total Ship.
Cover soils	43	1,243,000	37,800	NA ^a	1,243,000	NA ^a	NA ^a	1,243,000	NA ^a
Radon barrier soils	NA ^a	294,000	NA ^a	NA ^a	294,000	NA ^a	NA ^a	294,000	NA ^a
Sand and gravel	7	215,750	6,538	7	215,750	6,300	7	215,750	6,300
Riprap	2	43,400	1,973	2	43,400	1,973	2	43,400	1,973
Moab reclam. soils	15	424,867	12,875	15	424,867	12,875	15	424,867	12,875
Total	67	2,221,017	59,186	24	2,221,017	21,148	24	2,221,017	21,148

^aMaterial available at off-site disposal location.

2.2.4 Transportation of Tailings Pile and Other Contaminated Material

DOE evaluated the truck and pipeline modes of transportation for all three potential sites. Rail service was determined not feasible for the White Mesa Mill site because no rail service is available; therefore, this mode was evaluated only for the Klondike Flats and Crescent Junction sites. Table 2–8 shows the estimated source material quantities that would be transported under the off-site disposal alternative. Figure 2–14 shows the Moab site and the proposed truck and rail routes. The proposed slurry pipeline routes are shown in Figure 2–15, and detailed maps are presented in Appendix C.

Table 2–8. Source Material Quantities

Source Material	Volume (yd³)	Weight (dry short tons)
Uranium mill tailings	7,800,000	10,500,000
Pile surcharge	445,000	600,000
Subpile soil	420,000	566,000
Off-pile contaminated site soils	173,000	234,000
Vicinity property material	29,400	39,700
Total	8,867,400	11,939,700

2.2.4.1 Truck Transportation

DOE analyzed highway truck transportation for all three alternative sites and two work shift scenarios. Existing highways would be used with some improvements made. The Utah Department of Transportation (UDOT) is currently widening US-191 to a four-lane highway from the Moab site north to SR-313. DOE assumes this would be completed prior to any transportation of tailings from the Moab site. The truck fleet size would vary depending on the disposal site location. An independent trucking company using its own fleet of trucks would do the trucking.